

TILING SYSTEM FOR 3D RENDERED GRAPHICS

ABSTRACT

A method and an apparatus for shading three-dimensional computer graphic images is provided. A display on which the image is to be viewed is subdivided into a plurality of rectangular areas. For each rectangular area, a list of objects in the image which may be visible is determined, and this list is then used to determine how the rectangular area should be shaded for display. In deriving the list of objects, a determination of maximum and minimum values for each object in X and Yx and y directions is used, and a set of sampling points is determined from these values. If a bounding box surrounding the object covers any of the sampling points they are, the object is added to the object list or otherwise rejected. Also provided is a method and an apparatus for testing an edge information for each object against the sample points to determine whether or not the object falls into at the rectangular area in at the bounding box surrounding the object. The step of testing the edge information includes shifting the edge information by a predetermined amount in dependence ofbased on the orientation of each edge.